AMSAT News Service Weekly Bulletins
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SB SAT @ AMSAT $ANS-022.01
STS-60 ASTRONAUTS GET CALL SIGNS

HR AMSAT NEWS SERVICE BULLETIN 022.01 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 22, 1994
TO ALL RADIO AMATEURS BT
BID: $ANS-022.01

STS-60 ASTRONAUTS ISSUED HAM CALL SIGNS

Astronauts Charles F. Bolden, Jr. of Columbia, South Carolina and Ronald M. Sega of Seabrook, Texas, have been issued amateur radio call signs in preparation for their joint U.S.-Russia science mission. The Spacehab science objectives are primarily micro-gravity oriented with emphasis on materials and life science. Bolden (KE4IQB) is commander of the space shuttle Discovery (OV-103) due for lift off on February 3, 1994, at 12:10 UTC from Cape Kennedy. Sega (now KC5ETH) is the second of four Mission Specialists. They plan to contact several schools as part of the SAREX program - including one in Russia. The flight of STS-60 represents an historic first, the first of several joint U.S.-Russian Space Shuttle flights planned in preparation for the development of the international Space Station. Veteran cosmonaut Sergei Krikalev (U5MIR) was chosen to be the first Russian to fly on the U.S. Space Shuttle. During the 8 day flight, Cosmonaut Krikalev will support the science operations on the Space Shuttle as Mission Specialist 4. Last year, Sergei attended the Dallas Ham-Com convention and said he would try to qualify for a U.S. license - but his training duties have prevented him from doing so. Since no reciprocal operating privileges exist between Russia and the United States, Sergei will operate amateur radio under Bolden's control operator authority. The possibility also exists for the first U.S. Space Shuttle to Mir Space Station (Russian astronaut-to-Russian cosmonaut) amateur radio contact! Three new Russian amateurs were launched on January 8, 1994 aboard a Soyuz rocket and docked at the MIR space station on January 10th. The new crew includes Viktor Afanasiev (commander) U9MIR, Yuri Usachev (flight engineer) R3MIR and Valerij Polyakov (doctor) U3MIR. They are using the call sign R0MIR on packet.

[The AMSAT News Service would like to thank W5YI for this bulletin item.]

/EX
SB SAT @ AMSAT $ANS-022.02
MICROSATS TURN 4 YEARS OLD!

HR AMSAT NEWS SERVICE BULLETIN 022.02 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 22, 1994
TO ALL RADIO AMATEURS BT
BID: $ANS-022.02

HAPPY 4TH BIRTHDAY To DOVE, PACSAT, WEBERSAT, And LUSAT!

Four years ago, four small cube-shaped satellites were launched from the Kourou, French Guyana spaceport aboard an Ariane rocket at 01:35 UTC, 21-JAN-90. They started a new era in radio amateur satellite comunications.

/EX
SB SAT @ AMSAT $ANS-022.03
STS-60 SAREX TWO WEEKS AWAY!

HR AMSAT NEWS SERVICE BULLETIN 022.03 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 22, 1994
TO ALL RADIO AMATEURS BT
BID: $ANS-022.03

STS-60 SAREX Mission Less Than Two Weeks Away

STS-60 is currently scheduled for launch on February 3, 1994 at 12:10 UTC. The flight of STS-60 represents an historic first -- the first joint U.S.-Russian Space Shuttle flight. This will be the first of several joint missions planned in preparation for the development of the international Space Station. Cosmonaut Sergei Krikalev, U5MIR, was chosen to be the first Russian to fly on the U.S. Space Shuttle. SAREX information for STS-60 including frequencies, callsigns and Keplerian elements, follows:

STS-60 Shuttle Amateur Radio Experiment (SAREX) Information Sheet

Mission: STS-60 Space Shuttle Discovery Wake Shield Facility & Spacehab-2 Mission

Launch: February 3, 1994, 12:10 UTC

Orbit: 57 degree inclination

Mission Length: 8 days (Nominal)

Amateur Radio
Operators: Charlie Bolden, KE4IQB, Ron Sega, KC5ETH, Sergei Krikalev, U5MIR

Modes: FM Voice
Prime callsign: KE4IQB

Packet Radio
Callsign: W5RRR-1

Frequencies: All operations in split mode. Do not transmit on the downlink frequency.

Voice Freqs: Downlink: 145.55 MHz (Worldwide)
Uplinks: 144.91, 144.93, 144.95, 144.97, 144.99 MHz
(Except Europe)
144.70, 144.75, 144.80 MHz (Europe only)

Note: The crew will not favor any specific uplink frequency, so your ability to work the crew will be the "luck of the draw."

Packet Freqs: Downlink: 145.55 MHz
Uplink:144.49 MHz

Info: Goddard Amateur Radio Club, WA3NAN, Greenbelt Maryland, SAREX Bulletins and Shuttle Retransmissions
3860 KHz, 7185 KHz, 14,295 KHz, 21,395 KHz, 28,650 KHz and 147.45 MHz (FM)

Johnson Space Center ARC, W5RRR, Houston, Texas SAREX Bulletins
7225 KHz, 14,280 KHz, 21,395 KHz, 28,650 KHz, (SSB) and 146.64 MHz (FM)

ARRL Amateur Radio Station, W1AW, Newington, CT SAREX News Bulletins 3990, 7290, 14,290, 18,160, 21,390, and 28,590 KHz and 147.555 MHz (FM)

Also, bulletins available on internet, via AMSAT ANS, Compuserve, and your local PBSS.

School Group Participation: 5 school groups will participate in SAREX with pre-scheduled direct and telebridge contacts. These include 4 in the U.S. and one in Russia.

Prelaunch Keplerian Elements:

The following Keplerian Elements are provided by Gil Carman, WA5NOM at the Johnson Space Center ARC:

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Satellite: STS-60
Catalog number: 00060
Epoch time:      94034.56756353        (03 FEB 94   13:37:17.49 UTC)
Element set:     004
Inclination:       57.0033 deg
RA of node:       215.8607 deg           Space Shuttle Flight STS-60
Eccentricity:     .0010675              Prelaunch Element set JSC-004
Arg of perigee:   264.1500 deg          Launch:  03 FEB 94  12:10 UTC
Mean anomaly:      95.8328 deg
Mean motion:   15.72291901 rev/day           Gil Carman, WA5NOM
Decay rate:     3.3600e-04 rev/day*2      NASA Johnson Space Center
Epoch rev:               2
Checksum:              254
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/EX
SB SAT @ AMSAT $ANS-022.05
AO-13 OPERATIONS NET SCHEDS

HR AMSAT NEWS SERVICE BULLETIN 022.05 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 22, 1994
TO ALL RADIO AMATEURS BT
BID: $ANS-022.05

Current AMSAT Operations Net Schedule For AO-13

AMSAT Operations Nets are planned for the following times. Mode-B Nets are conducted on AO-13 on a downlink frequency of 145.950 MHz. If, at the start of the OPS Net, the frequency of 145.950 MHz is being used for a QSO, OPS Net enthusiasts are asked to move to the alternate frequency of 145.955 MHz.

Date	UTC	Mode	Phs	NCS	Alt NCS
06-Feb-94	0530	B	057	W5IU	WA5ZIB
12-Feb-94	2200	B	063	W9ODI	VE2LVC
20-Feb-94	0200	B	070	WA5ZIB	W5IU
28-Feb-94	0430	B	068	WB6LLO	W9ODI

Any stations with information on current events would be most welcomed. Also, those interested in discussing technical issues or who have questions about any particular aspect of OSCAR statellite operations, are encouraged to join the OPS Nets. If neither of the Net Control Stations show up, any participant is invited to act as the NCS.

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SB SAT @ AMSAT $ANS-022.06
WEEKLY OSCAR STATUS REPORTS

HR AMSAT NEWS SERVICE BULLETIN 022.06 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 22, 1994

TO ALL RADIO AMATEURS BT
BID: $ANS-022.06

Weekly OSCAR Status Reports: 21-JAN-94

AO-13: Current Transponder Operating Schedule:
L QST *** AO-13 TRANSPONDER SCHEDULE *** 1993 Dec 27-Jan 31
Mode-B : MA 0 to MA 180 | OFF
Mode-B : MA 180 to MA 220 |
Mode-S : MA 220 to MA 230 |<- S transponder; B trsp. is OFF
Mode-BS : MA 230 to MA 250 | Blon/Blat 240/-5
Mode-B : MA 250 to MA 256 | OFF
Omnis : MA 250 to MA 150 | Move to attitude 180/0, 31-Jan-94

L QST *** AO-13 TRANSPONDER SCHEDULE *** 1994 Jan 31-Apr 04
Mode-B : MA 0 to MA 90 |
Mode-BS : MA 90 to MA 120 |
Mode-S : MA 120 to MA 145 |<- S transponder; B trsp. is OFF
Mode-S : MA 145 to MA 150 |<- S beacon only
Mode-BS : MA 150 to MA 180 | Blon/Blat 180/0
Mode-B : MA 180 to MA 256 |
Omnis : MA 230 to MA 30 | Move to attitude 240/0, Apr 04
Poor Sun angle and battery testing need maximum OFF time.
[G3RUH/DB2OS/VK5AGR]

FO-20: The following is the current FO-20 operating schedule:
From January '94 thru March '94, the analog mode and the
digital mode will be on alternately for a week at a time.
ANALOG MODE:
26-JAN-94 8:20 -TO- 02-FEB-94 6:50 UTC
09-FEB-94 7:15 -TO- 16-FEB-94 7:40 UTC
23-FEB-94 8:05 -TO- 02-MAR-94 6:40 UTC
09-MAR-94 7:05 -TO- 16-MAR-94 7:30 UTC
23-MAR-94 7:52 -TO- 30-MAR-94 8:15 UTC
DIGITAL MODE: Unless otherwise noted above.
[Kazu Sakamoto (JJ1WTK) qga02014@niftyserve.or.jp]

AO-16: Operating normally. [WH6I]

LO-19: Operating normally. [WH6I]

KO-23: Up and running. Busy as usual. The most recent image files have
been blank. [WH6I]

PoSAT: G3AAJ reports than an agreement has been signed regarding the
PoSAT schedule and that amateur access to PoSAT will commence on
the 28th or 29th of January '94. [G3IOR]

KO-25: G3RWL had a personal communication from the ground controllers
stating that KO-25 will open up for amateur radio communications
in early Febuary '94. [G3IOR]

The AMSAT NEWS Service (ANS) is looking for volunteers to contribute weekly
OSCAR status reports. If you have a favorite OSCAR which you work on a
regular basis and would like to contribute to this bulletin, please send
your observations to WD0HHU at his CompuServe address of 70524,2272, on
INTERNET at wd0hhu@amsat.org, or to his local packet BBS in the Denver, CO
area, WD0HHU @ W0LJF.#NECO.CO.USA.NOAM. Also, if you find that the current
set of orbital elements are not generating the correct AOS/LOS times at
your QTH, PLEASE INCLUDE THAT INFORMATION AS WELL. The information you
provide will be of value to all OSCAR enthusiasts.

/EX